



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Southeast Regional Office • 20 Riverside Drive, Lakeville MA 02347 • 508-946-2700

Charles D. Baker
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April 1, 2016

Mr. Patrick Christopher
Excel Recycling, LLC
37 Charlotte White Road
Westport, MA 02790

RE: FREETOWN
Transmittal No.: X267930
Application No.: SE-15-028
Class: *SM-50*
FMF No.: 572194
AIR QUALITY PLAN APPROVAL

Dear Mr. Christopher

The Massachusetts Department of Environmental Protection ("MassDEP"), Bureau of Air and Waste, has reviewed your Non-major Comprehensive Plan Application ("Application") listed above. This Application concerns the proposed construction, and operation of a Wendt Model 6090 Shredder with separation equipment and ancillary processes at your Scrap Metal Recycling facility located at 17 Ridge Hill Road in Freetown, Massachusetts ("Facility"). The Application bears the seal and signature of George S. Lipka, Massachusetts Registered Professional Engineer Number 29704.

This Application was submitted in accordance with 310 CMR 7.02 Plan Approval and Emission Limitations as contained in 310 CMR 7.00 "Air Pollution Control" regulations adopted by MassDEP pursuant to the authority granted by Massachusetts General Laws, Chapter 111, Section 142 A-N, Chapter 21C, Section 4 and 6, and Chapter 21E, Section 6. MassDEP's review of your Application has been limited to air pollution control regulation compliance and does not relieve you of the obligation to comply with any other regulatory requirements.

MassDEP has determined that the Application is administratively and technically complete and that the Application is in conformance with the Air Pollution Control regulations and current air pollution control engineering practice, and hereby grants this **Plan Approval** for said Application, as submitted, subject to the conditions listed below.

Please review the entire Plan Approval, as it stipulates the conditions with which the Facility owner/operator ("Permittee") must comply in order for the Facility to be operated in compliance with this Plan Approval.

1. DESCRIPTION OF FACILITY AND APPLICATION

The Excel Recycling, LLC, has submitted an application for the construction and operation of a new scrap metal recycling facility located on approximately 5 acres north of the Campanelli Business Park, near the interchange of State Routes 24 and 79. The facility will consist of two principal operations, ferrous operations that include a Wendt Model M6090 Shredder (S1) with ferrous separation equipment (F1), and non-ferrous operations (NF1) consisting of an enclosed non-ferrous separation plant. The facility equipment will process metal scrap including flattened auto bodies, appliances, sheet metal and household goods. All equipment will have electric drive motors and there will be no fuel combustion on site for electric generation or process power.

The Wendt Model M6090 Shredder has a nominal design capacity of 60 tons of scrap metal per hour and will process up to 20,000 tons of scrap metal per month. The metal will be delivered to the facility by truck, and output materials and waste will be removed by truck or by rail. All incoming scrap will be inspected in accordance with the facility scrap acceptance policy, to ensure the removal of fluids and any hazardous materials.

The Permittee has submitted a BWP AQ Sound form and supporting noise study demonstrating that, with the proposed mitigation including a sound wall (noise barrier) and shredder enclosure, sound impacts will increase the broadband sound level less than 10 dB(A) above ambient at the property line, will not produce a “pure tone” condition, and will comply with the MassDEP’s noise policy. The Wendt Model M6090 Shredder will be surrounded by a roofed enclosure lined with 3-ply belt panels to achieve a minimum surface density of 5 pounds per square foot for noise mitigation. An eighteen (18) foot high noise barrier will be constructed along a portion of the north edge and the east edge of the property as necessary to achieve the required noise mitigation. The MassDEP may require future noise monitoring to demonstrate compliance with the MassDEP noise policy.

Operations at the facility will result in the emission of air contaminants to include particulate matter (PM), volatile organic compounds (VOC) and hazardous air pollutants (HAP).

The Wendt Model M6090 Shredder has a water injection system that is an integral part of the shredding process to control heat. Although not being approved as a control device in this application, the water injection system as well as the shredder enclosure, will serve to minimize particulate matter (PM) and visible emissions.

The Permittee submitted a top-down Best Available Control Technology (BACT) analysis and BWP AQ BACT form as part of this application to evaluate air pollution control equipment options. Best Available Control Technology (BACT) is defined in Table 2.

2. EMISSION UNIT IDENTIFICATION

Each Emission Unit (“EU”) identified in Table 1 is subject to and regulated by this Plan Approval:

Table 1			
EU	Description	Design Capacity	Pollution Control Device (PCD)
S1	Wendt Model No. M6090 Hammermill shredder	60 tons/hour (nominal)	Acoustical Enclosure
F1	Wendt Ferrous Separation System		N/A
NF1	Wendt Non-Ferrous Separation System		

Table 1 Key:

EU = Emission Unit Number

N/A = Not applicable

PCD = Pollution Control Device

3. APPLICABLE REQUIREMENTS

A. OPERATIONAL, PRODUCTION and EMISSION LIMITS

The Permittee is subject to, and shall not exceed the Operational, Production, and Emission Limits as contained in Table 2:

Table 2			
EU	Operational / Production Limit	Air Contaminant	Emission Limit
S1	<u>Scrap Throughput</u> ^(Note 1) 1. 20,000 tons per month 2. 196,000 tons per year 3. Water injection \geq 10 gallons per minute (to be maintained in accordance with manufacturer’s specifications while in operation). 4. Processed scrap metal shall contain no fluids and no hazardous material. ^(Note 2)	PM/PM ₁₀ /PM _{2.5} ^(Note 3)	0.15 lb/hr ^(Note 6) 0.03 TPM 0.25 TPY
		VOC ^(Note 4)	15.0 lb/hr ^(Note 6) 2.5 TPM 24.5 TPY
		HAP _(single) ^(Note 5)	2.2 lb/hr ^(Note 6) 0.37 TPM 3.6 TPY
		HAP _(total) ^(Note 5)	5.1 lb/hr ^(Note 6) 0.84 TPM 8.3 TPY

Table 2			
EU	Operational / Production Limit	Air Contaminant	Emission Limit
F1	<u>Scrap Throughput</u> ^(Note 1) 5. 20,000 tons per month 6. 196,000 tons per year	PM ^(Note 3)	0.51 TPM 4.98 TPY
		PM ₁₀ /PM _{2.5} ^(Note 3)	0.19 TPM 1.83 TPY
NF1		PM ^(Note 3)	0.05 TPM 0.53 TPY
		PM ₁₀ /PM _{2.5} ^(Note 3)	0.02 TPM 0.19 TPY
Facility -wide		Visible Emissions	0% opacity, exclusive of uncombined water vapor

Table 2 Notes:

Note 1 = Scrap throughput as measured at the Shredder infeed conveyor.

Note 2 = As defined in the facility Scrap Acceptance Policy. See also Table 6, Special Terms and Conditions.

Note 3 = PM emissions for EUS1 are based on an uncontrolled emission factor of 0.00257 lbs per ton of scrap processed as developed by the Institute of Scrap Recycling Industries (ISRI). PM emissions for EU F1 and EU NF1 are based on AP-42 Table 11.19.2-2 emission factors for crushed stone processing operations.

Note 4 = EU S1 VOC emissions are “as propane” and are based on an uncontrolled emission factor of 0.25 lbs per ton of scrap processed as proposed based on the 2007 source test data from the SA Recycling of Los Angeles, Terminal Island Mega Shredder and the October 2009 source test data from the Omni Source Corporation Shredder in Jackson, MI as described in the “Summary of Shredder and VOC Emission Factor Information” contained in Table 3-2 and Figure 3-1 of the “Review of Information for Scrap Metal Shredder VOC Emission Factors”, dated December 28, 2011, as submitted to Oregon Department of Environmental Quality by Schnitzer Steel Industries.

Note 5 = HAP emissions are based on the results of the 2007 source test data from the SA Recycling of Los Angeles, Terminal Island, CA Mega Shredder.

Note 6 = Pound per hour emission limits for emission unit S1 are based on a 3-hour average at a maximum process rate of 60 tons per hour, and are for stack test purposes only.

Table 2 Key:

EU = Emission Unit Number

Lb/hr = pounds per hour

PM = Total Particulate Matter

PM₁₀ = Particulate Matter less than or equal to 10 microns in diameter

PM_{2.5} = Particulate Matter less than or equal to 2.5 microns in diameter

VOC = Volatile Organic Compounds

HAP (single) = maximum single Hazardous Air Pollutant

HAP (total) = total Hazardous Air Pollutants.

TPM = tons per month

TPY = tons per consecutive 12-month period

B. COMPLIANCE DEMONSTRATION

The Permittee is subject to, and shall comply with, the monitoring, testing, record keeping, and reporting requirements as contained in Tables 3, 4, and 5:

Table 3	
EU	Monitoring and Testing Requirements
S1	1. The Permittee shall monitor the throughput of material through the shredder to document the tons of material processed on a monthly and consecutive twelve month period basis.
	2. The Permittee shall, continuously, while in operation, monitor water flow rate (gal/minute) to ensure shredder operation in accordance with the manufacturer's specifications.
Facility-wide	3. The Permittee shall inspect all loads of scrap metal received at the facility, prior to processing through the shredder, to ensure compliance with the facility scrap acceptance guidelines as detailed in Attachment C of the approved application.
	4. The Permittee will ensure that all parties delivering scrap metal certify in writing that fluids, including, but not limited to, coolants, oils, brake fluids and lubricants, have been drained from the scrap material and all fuel tanks have been removed.
	5. The Permittee will ensure that all parties delivering scrap metal certify in writing that all refrigerants, PCB containing capacitors and mercury containing switches have been removed.
	6. The Permittee shall monitor ongoing operations to ensure all material being processed is sufficiently wetted down to avoid visible emissions of particulate matter.
	7. 40 CFR 60 Appendix A, Method 22 shall be used to determine compliance with the visible emission limit.
	8. The Permittee shall monitor all operations to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.
	9. The MassDEP, under the authority of 310 CMR 7.02(7)(a), may require noise monitoring to demonstrate compliance with the MassDEP noise policy. Any noise monitoring to demonstrate compliance shall be conducted in accordance with a MassDEP approved protocol.
	10. If and when MassDEP requires it, the Permittee shall conduct emission testing in accordance with USEPA Reference Test Methods and Regulation 310 CMR 7.13
	11. At least 30 days prior to emission testing, the Permittee shall submit to MassDEP for approval a stack emission pretest protocol.
	12. Within 45 days after emission testing, the Permittee shall submit to MassDEP a final stack emission test results report.

Table 3 Key:

CFR = Code of Federal Regulations

CMR = Code of Massachusetts Regulations

EU = Emission Unit Number

PCB = Polychlorinated Biphenyl

USEPA = United States Environmental Protection Agency

Table 4	
EU	Record Keeping Requirements
S1	1. The Permittee shall maintain daily records of throughput, in tons of scrap material, through the shredder for incorporation into monthly and consecutive twelve month period records.
	2. The Permittee shall maintain a record of the shredder water flow rate to demonstrate continuous water flow, during shredder operation, in accordance with the manufacturer's specifications.
Facility-wide	3. The Permittee shall maintain a record of inspection of all scrap deliveries to document compliance with the facility scrap acceptance policy.
	4. The Permittee shall maintain a record of all certifications made by parties delivering scrap metal documenting that fluids and hazardous materials have been removed.
	5. The Permittee shall maintain a complaint log, including time, date, and circumstances, recording any complaints registered with the facility from the Town of Freetown, or neighboring residents, regarding nuisance noise, dust, or odor.
	6. The Permittee shall maintain adequate records on-site to demonstrate compliance status with all operational, production, and emission limits contained in Table 2 above. Records shall also include the actual emissions of air contaminant(s) emitted for each calendar month and for each consecutive twelve-month period (current month plus prior eleven months). These records shall be compiled no later than the 15 th day following each month. An electronic version of the MassDEP approved record keeping form, in Microsoft Excel format, can be downloaded at http://www.mass.gov/eea/agencies/massdep/air/approvals/limited-emissions-record-keeping-and-reporting.html#WorkbookforReportingOn-SiteRecordKeeping .
	7. The Permittee shall maintain records of monitoring and testing as required by Table 3.
	8. The Permittee shall maintain a copy of this Plan Approval, underlying Application and the most up-to-date SOMP (including Scrap Acceptance Guidelines and Dust Management Plan) for the EU(s) approved herein on-site.
	9. The Permittee shall maintain a record of routine maintenance activities performed on the approved EU(s), PCD(s) and monitoring equipment. The records shall include, at a minimum, the type or a description of the maintenance performed and the date and time the work was completed.
	10. The Permittee shall maintain a record of all malfunctions affecting air contaminant emission rates on the approved EU(s) and monitoring equipment. At a minimum, the records shall include: date and time the malfunction occurred; description of the malfunction; corrective actions taken; the date and time corrective actions were initiated and completed; and the date and time emission rates and monitoring equipment returned to compliant operation.
	11. The Permittee shall maintain records to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.
	12. The Permittee shall maintain records required by this Plan Approval on-site for a minimum of five (5) years.
	13. The Permittee shall make records required by this Plan Approval available to MassDEP and USEPA personnel upon request.

Table 4 Key:
CMR = Code of Massachusetts Regulations

EU = Emission Unit Number
PCD = Pollution Control Device
SOMP = Standard Operating and Maintenance Procedure
USEPA = United States Environmental Protection Agency

Table 5	
EU	Reporting Requirements
Facility-wide	1. The Permittee shall submit to MassDEP all information required by this Plan Approval over the signature of a “Responsible Official” as defined in 310 CMR 7.00 and shall include the Certification statement as provided in 310 CMR 7.01(2)(c).
	2. The Permittee shall notify the Southeast Regional Office of MassDEP, BAW Compliance & Enforcement Chief by telephone: 508-946-2817, or fax : 508-947-6557, as soon as possible, but no later than three (3) business day after discovery of an exceedance(s) of Table 2 requirements. A written report shall be submitted to Compliance & Enforcement Chief at MassDEP within ten (10) business days thereafter and shall include: identification of exceedance(s), duration of exceedance(s), reason for the exceedance(s), corrective actions taken, and action plan to prevent future exceedance(s).
	3. The Permittee shall report to MassDEP, in accordance with 310 CMR 7.12, all information as required by the Source Registration/Emission Statement Form. The Permittee shall note therein any minor changes (under 310 CMR 7.02(2)(e), 7.03, 7.26, etc.), which did not require Plan Approval.
	4. The Permittee shall notify MassDEP within 7 days upon the completion of the installation of all approved equipment and startup of facility operations.

Table 5 Key:
BAW = Bureau of Air and Waste
CMR = Code of Massachusetts Regulations
EU = Emission Unit

4. SPECIAL TERMS AND CONDITIONS

A. The Permittee is subject to, and shall comply with, the Special Terms and Conditions as contained in Table 6 below:

Table 6	
EU	Special Terms and Conditions
S1	<p>1. The Permittee shall incorporate a metal management plan as documented in Attachment B and Attachment C of the approved application to ensure that hazardous materials are not processed through the Wendt Model M6090 Shredder. The materials that shall be excluded include, but are not limited to:</p> <ul style="list-style-type: none"> • Refrigerants (including CFCs and HCFCs) in refrigerators and air conditioners. Customers are REQUIRED to sign a statement certifying that all refrigerants have been properly removed. • Asbestos or asbestos containing materials, such as pipe insulation, acetylene tanks and surfacing material commonly found on I-beams, tanks, and other structural and demolition debris. • Oils, gasoline, other petroleum products and antifreeze. This includes hydraulic fluids, gear oils and grease. Hydraulic equipment must have hydraulic hoses removed and cylinders cut open and drained. • Items that contain or have contained PCBs, including small capacitors, fluorescent light ballasts and electrical transformers or transformer components and paint. • Non-empty paint cans or other non-empty paint containers. • Fluorescent lights, neon, high intensity mercury vapor lights, high pressure sodium, metal halide and associated ballasts. • Circuit boards. • Any material containing hazardous or toxic substances. • Military scrap of any kind, unless approved in advance. • Explosives or explosive residues. • Radioactive materials of any kind. • Tires, wood, dirt, yard debris, concrete, asphalt, glass, rubber, or other non-metallic materials. • Computers, televisions, computer monitors, CRT, LCD.
	<p>2. The Wendt Model No. M6090 Shredder will be enclosed by a roofed structure 29 feet by 20 feet and 40 feet tall. The enclosure will have no visible gaps and will be lined with 3-ply belt panels to achieve a minimum surface density of 5 pounds per square foot. The shredder enclosure hinged maintenance doors will be closed at all times during operation, and the enclosure will be designed to accommodate additional belting material if necessary for additional noise mitigation.</p>
Facility-wide	<p>3. Offsite noise from the operation of the Facility shall not exceed 10 dB(A) above background and shall not cause a puretone condition as defined in MassDEP's DAQC Policy No. 90-001. MassDEP reserves the right to require additional noise monitoring and restrict facility operations, to include operating hours, should sound from the facility be determined, by MassDEP, to create a nuisance condition.</p>
	<p>4. The Permittee shall construct a solid noise barrier wall along a portion of the north edge and the east edge of the property. The noise barrier wall will be of solid construction (i.e. no visible gaps), a minimum 18 feet in height, and will extend from the northeast corner for 715 linear feet along the north edge and 270 linear feet along the east edge of the property, or as necessary to achieve the desired noise mitigation.</p>

Table 6	
EU	Special Terms and Conditions
Facility-wide	5. All equipment shall be maintained and operated in accordance with the manufacturer's recommended procedures.
	6. Scrap storage, shedder residue storage, separation equipment and ferrous/non-ferrous shred storage shall be monitored at all times for the potential for nuisance dust emissions. The Permittee shall utilize dust control equipment (e.g. water spray (Dust Boss), tarpaulins, etc.) as necessary to prevent visible emissions from the facility as detailed in the Dust Management Plan in Attachment E of the approved application. Auto shredder residue (ASR) shall be moved off the property on a daily basis to eliminate stockpiling.
	7. The Permittee shall utilize best management practices with respect to maintaining a clean facility and avoiding contaminant track out as detailed in the Dust Management Plan in Attachment E of the approved application.

Table 6 Key:

ASR = Auto Shredder Residue
CFC = Chlorofluorocarbon(s)
CRT = Cathode Ray Tube
DAQC = Division of Air Quality Control
dB (A) = decibel, a-weighted
EU = Emission Unit Number
HCFC = Hydrochlorofluorocarbon(s)
LCD = Liquid Crystal Display
PCB = polychlorinated biphenyl(s)

- B. The Permittee shall install and use an exhaust stack, as required in Table 7, on each of the Emission Units that is consistent with good air pollution control engineering practice and that discharges so as to not cause or contribute to a condition of air pollution. Each exhaust stack shall be configured to discharge the gases vertically and shall not be equipped with any part or device that restricts the vertical exhaust flow of the emitted gases, including, but not limited to, rain protection devices known as "shanty caps" and "egg beaters."
- C. The Permittee shall install and utilize exhaust stacks with the following parameters, as contained in Table 7, for the Emission Units that are regulated by this Plan Approval:

Table 7				
EU	Stack Height Above Ground (feet)	Stack Inside Exit Dimensions	Stack Gas Exit Velocity Range (feet per second)	Stack Gas Exit Temperature Range (°F)
S1	g.v.	n/a	n/a	n/a
F1	g.v.	n/a	n/a	n/a
NF1	g.v.	n/a	n/a	n/a

Table 7 Key:

EU = Emission Unit Number
°F = Degree Fahrenheit
g.v. = general ventilation
n/a = not applicable

5. GENERAL CONDITIONS

The Permittee is subject to, and shall comply with, the following general conditions:

- A. Pursuant to 310 CMR 7.01, 7.02, 7.09 and 7.10, should any nuisance condition(s), including but not limited to smoke, dust, odor or noise, occur as the result of the operation of the Facility, then the Permittee shall immediately take appropriate steps including shutdown, if necessary, to abate said nuisance condition(s).
- B. If asbestos remediation/removal will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that all removal/remediation of asbestos shall be done in accordance with 310 CMR 7.15 in its entirety and 310 CMR 4.00.
- C. If construction or demolition of an industrial, commercial or institutional building will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that said construction or demolition shall be done in accordance with 310 CMR 7.09(2) and 310 CMR 4.00.
- D. Pursuant to 310 CMR 7.01(2)(b) and 7.02(7)(b), the Permittee shall allow MassDEP and / or USEPA personnel access to the Facility, buildings, and all pertinent records for the purpose of making inspections and surveys, collecting samples, obtaining data, and reviewing records.
- E. This Plan Approval does not negate the responsibility of the Permittee to comply with any other applicable Federal, State, or local regulations now or in the future.
- F. Should there be any differences between the Application and this Plan Approval, the Plan Approval shall govern.
- G. Pursuant to 310 CMR 7.02(3)(k), MassDEP may revoke this Plan Approval if the construction work is not commenced within two years from the date of issuance of this Plan Approval, or if the construction work is suspended for one year or more.
- H. This Plan Approval may be suspended, modified, or revoked by MassDEP if MassDEP determines that any condition or part of this Plan Approval is being violated.
- I. This Plan Approval may be modified or amended when in the opinion of MassDEP such is necessary or appropriate to clarify the Plan Approval conditions or after consideration of a written request by the Permittee to amend the Plan Approval conditions.

- J. Pursuant to 310 CMR 7.01(3) and 7.02(3)(f), the Permittee shall comply with all conditions contained in this Plan Approval. Should there be any differences between provisions contained in the General Conditions and provisions contained elsewhere in the Plan Approval, the latter shall govern.

6. MASSACHUSETTS ENVIRONMENTAL POLICY ACT

MassDEP has determined that the filing of an Environmental Notification Form (ENF) with the Secretary of Energy & Environmental Affairs, for air quality control purposes, was not required prior to this action by MassDEP. Notwithstanding this determination, the Massachusetts Environmental Policy Act (MEPA) and 301 CMR 11.00, Section 11.04, provide certain “Fail-Safe Provisions,” which allow the Secretary to require the filing of an ENF and/or an Environmental Impact Report (EIR) at a later time.

7. APPEAL PROCESS

This Plan Approval is an action of MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing. A request for a hearing must be made in writing and postmarked within twenty-one (21) days of the date of issuance of this Plan Approval.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts, which are the grounds for the request, and the relief sought. Additionally, the request must state why the Plan Approval is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to the Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

Commonwealth of Massachusetts
Department of Environmental Protection
P.O. Box 4062
Boston, MA 02211

This request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below. The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

MassDEP may waive the adjudicatory hearing-filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with

the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

Enclosed is a stamped approved copy of the application submittal.

Should you have any questions concerning this Plan Approval, please contact Peter Russell by telephone at 508-946-2821, or in writing at the letterhead address.

Sincerely,

This final document copy is being provided to you electronically by the Department of Environmental Protection. A signed copy of this document is on file at the DEP office listed on the letterhead.

Thomas Cushing
Permit Chief
Bureau of Air and Waste

Enclosure

ecc: Freetown Board of Health
Freetown Fire Department
George S. Lipka, P.E., Tetra Tech
MassDEP/Boston - Yi Tian
Mass DEP/SERO - Maria Pinaud, Lisa Ramos, Peter Russell